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Wireless Infrastructure Analysts

Policy-Based Guest Wi-Fi SaaS Platforms: Market Trends and Forecasts 2018-2023

May 2018

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1. Executive Summary

Wi-Fi has become a household necessity even for kids as young as 4 years of age. It is No. 1 method of connecting in the home, at work, and, increasingly, in public spaces. Although Wi-Fi is expected to be free, enterprises, venues, and service providers are working hard to find **ways to monetize this amenity.** Verticals such as retail and hospitality who depend increasingly on Wi-Fi to run their businesses and satisfy their customer needs, are now fully embracing innovative ways to leverage their Wi-Fi infrastructure

The last several years have also witnessed the change of the telcos attitude towards Wi-Fi. On one hand, the mobile network operators (MNOs) have realized that, by offloading a portion of the mobile data traffic and thus embracing high-quality Wi-Fi, they could both reduce their OPEX and improve customer experience with or without unlimited mobile data plans. On the other hand, the cable operators, particularly in the US, are finally in a position to offer viable wireless services and leverage their extensive Wi-Fi and homespot footprint.

In this context, numerous innovations have been implemented in the last few years to improve the end-user experience and to ensure that onboarding is both seamless and secure. In particular, Wi-Fi SaaS vendors have developed different solutions for offloading to roaming and monetization. This report discusses the overall market and technology trends encompassing service providers, enterprises, and venues; however, **the primary focus is on the guest Wi-Fi solutions and market size projections.**

The guest Wi-Fi SaaS vendors have barely scratched the surface of its market potential. According to our estimates, only about 1 million access points are “powered” today with managed guest Wi-Fi SaaS worldwide. Yet, the potential is for more than 69 million managed access points by 2023 from 34 million in 2018

Currently, the guest Wi-Fi SaaS landscape features small vendors with fewer than 300 employees and guest Wi-Fi revenues of less than $10 million each. There is no clear one leader today among the SaaS vendors but the top 3 account for 80% of deployments measured in access points. There vendors are catering to both telcos and enterprises but with limited scale deployments of less than 200,000 access points each. However the market potential is real with annual revenues from license fees sold to distributors and service providers of $9 billion by 2023.

Yet, what is obvious is that this is a volume business above all: the more access points and users using the software, the more licensing revenue. Consequently, the major concern of solution vendors is how to scale—and do it fast before depleting their financial resources.

This report is based on years closely tracking the Wi-Fi industry, speaking to both service providers and solution vendors. Some of the information shared by the providers and vendors interviewed remains under non-disclosure agreement; however, the data and insights shared by these industry insiders were useful to provide a detailed account of the state of the market as well as understand key trends.

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3. Methodology

Given that Maravedis has been providing market research and analysis for the wireless industry since 2002, we have established a long-standing relationship with the players in the industry and developed internal models to generate reliable forecasts. Furthermore, to ensure that we provide sufficient value to our customers, only those vendors who agreed to provide a detailed briefing were profiled. Thus, it has not been our goal to profile each and every of more than 40 vendors in the market today. We have been closely tracking the Wi-Fi space for over 5 years and have an in-depth understanding of the regulatory, technology, and market trends. In the remainder of this section, we provide further detail on the methodology we used.

3.1 Scope of projections

The Wi-Fi software as a service is a rather broad topic in itself (Figure 1). Functions like offloading and roaming have a loose relation to location-based marketing and guest Wi-Fi. Those are different propositions for distinct uses cases and markets. While some players may be participating in both, the dynamics are different and, therefore, projecting their respective markets within a single report is an arduous exercise. Wi-Fi offloading and roaming are sufficiently broad and distinct for their own dedicated report and set of projections. Consequently, **the present report provides market projections ONLY for the guest Wi-Fi portion of the business for both telcos and enterprises.** While discussing roaming and offloading trends from a qualitative perspective, the report does not include market forecasts for roaming and offloading.

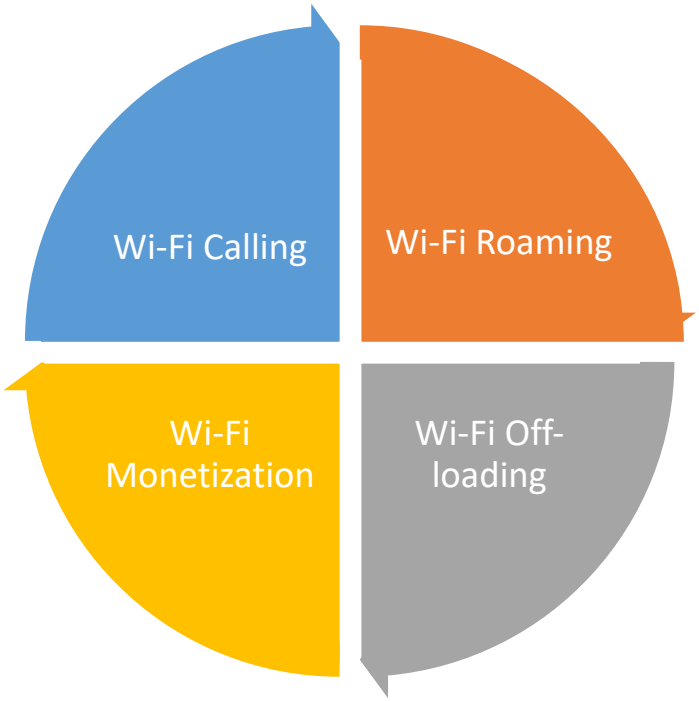

Figure 1: The Wi-Fi software services

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3.2 Defining guest Wi-Fi

With regard to guest Wi-Fi, we have included all aspects of network access control relevant for facilitating the onboarding of both employees and "guests", be the latter MDU tenants or walk-in store visitors.

Conventionally, guest Wi-Fi solutions include the following modules (see Figure 2):

- Access Node/Captive portal/splash page
- AAA solution with LDAP/RADIUS or Diameter Database/server
- APIs to integrate with external CRMs, Databases, and Apps
- Billing/charging mechanisms
- Analytics

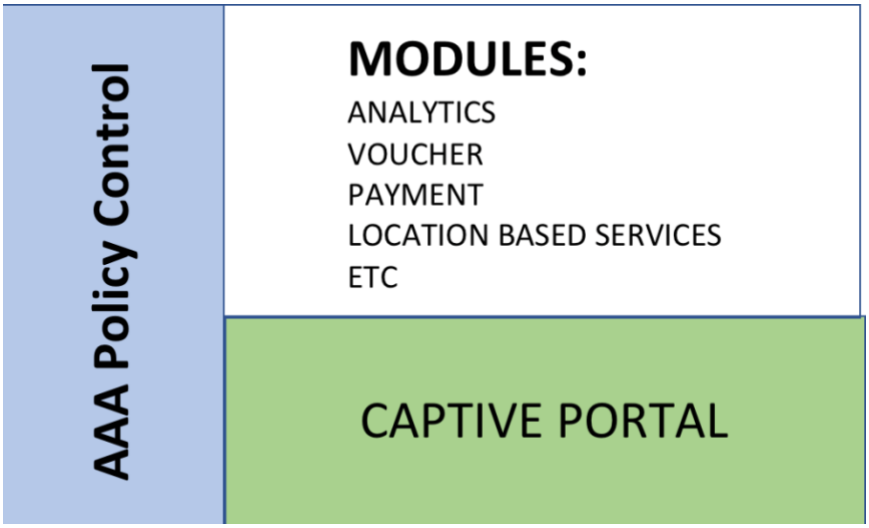

Figure 2: Modules of guest Wi-Fi solutions

3.3 Average selling price

Another challenge to size the market space is that custom pricing—i.e. when vendors establish a different pricing scheme for each individual client—appears to be the norm. Usually, pricing is established by access point or location. However, an increasing trend is to establish pricing by usage measured in concurrent sessions, which provides venues or service providers with a more flexible OPEX model. Furthermore, there is a mix of license models: some perpetual (e.g., CAPEX use for on premise), other recurring (e.g., OPEX for cloud-based); there are also maintenance fees and a great deal of software customization is taking place. All these factors render the market sizing even more hazardous. However, most vendors use pricing per access point as a common denominator to derive the expected guest Wi-Fi SaaS revenues. In terms of the evolution of the average selling price in the upcoming five-year period, we expect volume discounts to be offset by the additional modules such as analytics, location-based services, content filtering, etc.—all of which will become the standard in the next several years and contribute to the monthly price per access point.

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3.4 Volumes

We started our estimates of Wi-Fi hotspots in each vertical by acquiring the number of establishments in each country. Thereafter, our internal model (developed and maintained for our global Wi-Fi tracker) was used to generate the number of hotspots, the number of access point by vertical per country, and a penetration rate evolution of guest Wi-Fi. This step-wise procedure yielded in a number of access points powered with guest Wi-Fi. Finally, to derive the expected total addressable market, the projected volume was used to multiply the average selling price per year per access point (see Figure 3).

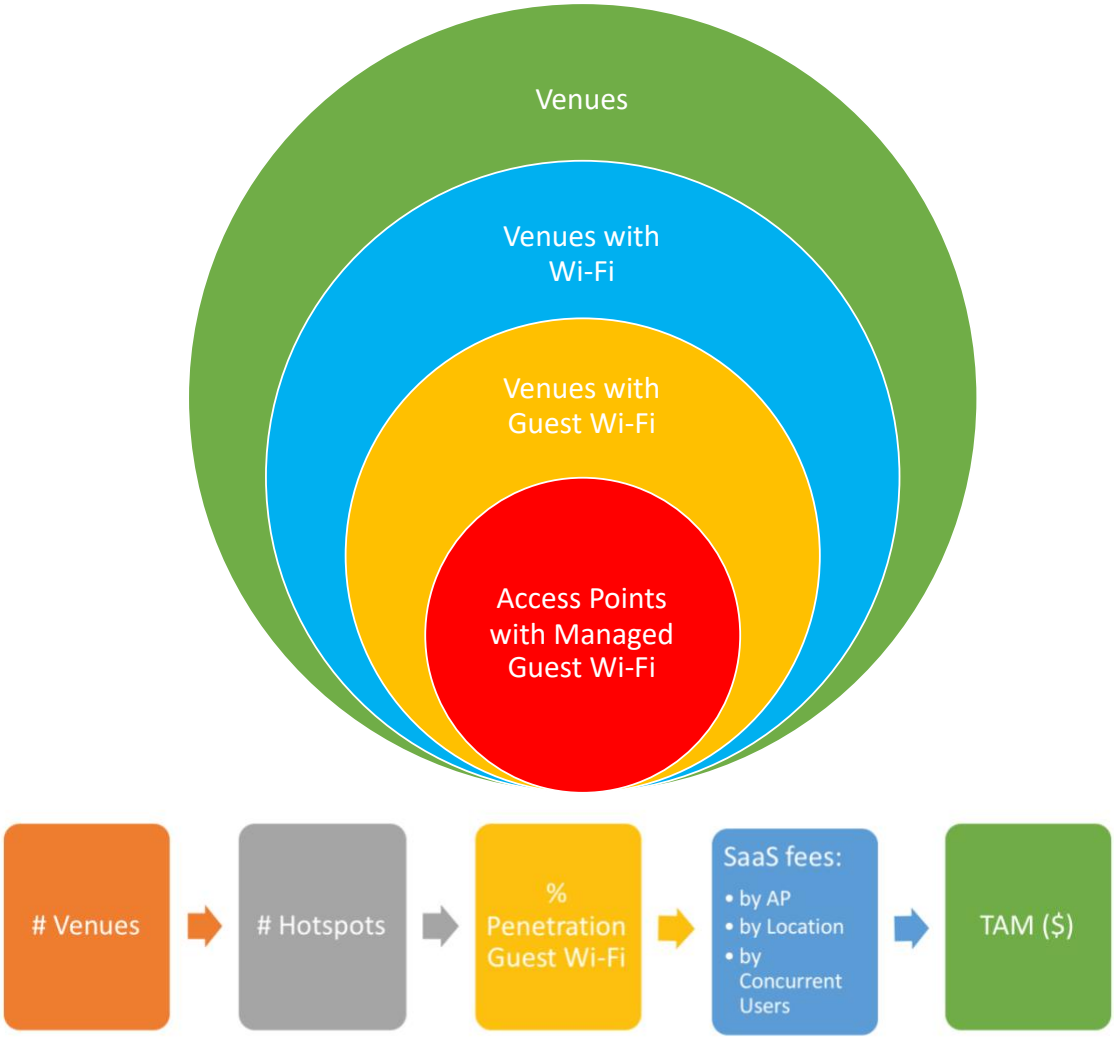

Figure 3: Methodology for TAM

The following verticals were selected due to their great number of hotspots and/or the importance of guest Wi-Fi in their particular business model:

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- Hotels
- Cafés and restaurants
- Retail
- Healthcare
- Airports

In terms of geographical scope, we provide by country for the following regions (see Table 1).

North America	United States Canada	**Latin America**	Argentina Brazil Colombia Mexico Chile
Europe	Austria Belgium Denmark France Germany Italy Netherlands Norway Poland Russian Federation Spain Sweden Switzerland Turkey United Kingdom	**Asia**	China Japan India Indonesia Malaysia Singapore South Korea Thailand Australia New Zealand Rest of APAC
Middle East and Africa (MEA)	Israel Nigeria Saudi Arabia South Africa United Arab Emirates		

Table 1: Geographical coverage

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